

Work Order ID 74110

Page 1

Wednesday, September 21, 2011 2:57:43 PM

Item ID: D350-636-012

Accept



Setup Start



Revision ID:

Stop



Item Name: Skidtube RH

Start Date: 9/21/2011 Start Qty: 1.00



Cust Item ID:

Required Date: 10/7/2011 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan: ✓Date: 11-09-21

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

Draw Nbr

Revision Nbr

D2750

F

D3492

C

100

0.00



DC

DOCUMENT CONTROL

Memo

0.00

Document Control

Photocopy blue file and type labels per PPP D350-636-012 CHG 006

Sulco 12

JG Gr M25 11-10-12

74110.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Customer:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

110

0.00



Skidtubes

Skidtubes

0.00

Skidtubes

Memo

1- Pick D2600-3 Bent ✓

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750 ✓

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr. ✓

4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting ✓

5- Drill only two fwd step holes using DT9616. Ensure proper positioning. ✓

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail K) ✓

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE*** ✓

8- Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail L to 0.500" (8 holes per side) ✓

9- Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297". ✓

10- Open up holes of Detail A to 0.297" (total of 2 holes per side) ✓

DL 11/09/29

Should read
Detail KShould read
Detail J

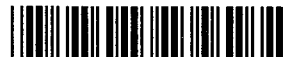
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Run Start



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Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left
from bending as per QSI 004A/R Aluminum Rod batch: 1118736

BE 11/10/04

12-Grind welds flush as per Dwg D2750

BB 11/10/05

120



QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00

Memo

0.00

Sulcolos

130



QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Sulcolos

(76)

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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

Pl.
11/10/05

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

11-10-5

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

0.00



Skidtubes

Skidtubes

0.00

Memo

1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.

2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750.

3-Open float holes to .500" (4 per Side)

4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9)

5-Deburr and blow out all chips from inside of tube

6-Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R ☐ Sikaflex-291 batch: 118393 ☐☐☐
exp. date: 12/04/05

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9)

A/R ☐ Aluminum Rod batch: M118736

9- At section AP-AP drill out x-bolt spacer to 0.404"

10-Grind welds flush as per Dwg D2750

11-Spot face ground handling holes section (total of 4 places per side) as per

DL 11/10/05

DL 11/10/05

BE 11/10/06

DL 11/10/06

DD

11-10-06

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

dwg D2750

12-Deburr holes

DP

11-10-06

170

QC10- Inspect visual per QSI004- ground welds

0.00

5/11/10/07



QC

Memo

0.00

Quality Control

180

QC5- Inspect part completeness to step on W/O

0.00

8/11/10/07



QC

Memo

0.00

Quality Control

20

W/O:		WORK ORDER CHANGES					
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Customer:

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

Pressure Wash per QSI005 4.3

0.00



HandFinish

Memo

0.00

Hand Finishing

Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.

1 BL 11-10-7.

200

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

7:50
320 OF
8:20

1 BL M-1 11/10/11

210

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

Inspect for foreign object per QSI 024

1 BL 11-10-11.

W/O:		WORK ORDER CHANGES					
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Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

230

0.00



HandFinishing

0.00

HandFinish

Memo

Hand Finishing

1-Install inserts as per dwg D2750

2-Inspect for Foreign Objects

3-Spray inside of tube with "LPS-3"
batch: N/A4-Install blade fitting D3488-042, wearshoes and ground handling hardware as
per dwg D2750

SIKA FLEX 344

BATCH: 118393EXP DATE: 12-55-assemble o'ring to plug as per dwg D3492 and apply o'ring lube
A/R 55-o'ring lube batch: 1183986-Coat all exposed fasteners with "LPS Procyon"
batch: 1175261 BL 11-10-12

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

240

QC5- Inspect part completeness to step on W/O

0.00

0.00 *8/11/12*

QC

Memo

Quality Control

250

Pick Kit

0.00



0.00

Packaging

Memo

Packaging

8/11/12

260

QC4- 100% Inspect kits for completeness

0.00

0.00 *8/11/12*

QC

Memo

Quality Control

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Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

270

0.00



Packaging

Packaging

Memo

0.00

Packaging

Package as per PPP D350-636-012

280

0.00



QC21- Final Inspection - Work Order Release

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES					
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NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:57:49 PM

Page 1

Work Order ID: 74110

Parent Item: D350-636-012

Parent Item Name: Skidtube RH



Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:I 02.09.25 Rearranged procedure steps KJ
IPP Rev:J 06-03-29 As per Rev D EC
IPP Rev:K 06-07-13 As per dsi9343 EC
IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC
IPP Rev:M 08-04-22 update steps 4,13 DD verified by:EC
IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec IPP Rev:O
10.06.22 revise seq110 DD verf:EC IPP Rev:P 10.10.01 as per
IIN revH DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

ALS4-1032-225

Purchased

No

Each

1,862.000

38



Insert



Location

ST282

186296

Loc Qty

1862

Loc Code

38.

110768

62

118386

860

118966

940

AN3C5A

Purchased

No

230

Each

1,058.000

34

34



Bolt

Location

FP-A

7

115835

7

ST350

1051

116419

28

117343

352

117764

169

117872

2

118451

500

34.

BL 11-10-12.

W/O:		WORK ORDER CHANGES					
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Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C6A

Purchased

No

230

Each

280.0000

4

4



BOLT

BL 11-10-12.

Location

Loc Qty

Loc Code

FP-A

1

111982

1

ST351

279

111982

2

116419

23

116549

2

116704

12

117619

10

117688

1

117872

29

118422

200

AN6C44A

Purchased

No

230

Each

111.0000

4

4



BOLT

BL 11-10-12

Location

Loc Qty

Loc Code

FG

2

103964

2

ST344

109

118332

19

118387

50

118985

40

Wednesday, September 21, 2011 2:57:49 PM

Shop Packet Print

Page 2

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Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

AN8C35A

Purchased

No

230

Each

120.0000

1

1



BOLT



BL 11-10-12.

Location

Loc Qty

Loc Code

FP

84

117511 ✓

18

118286

66

FP-A

1

115960

1

ST345

34

117834

34

ST346

1

114442

0

115188

0

115960

1

AN960C10L

NAS1149C0332 /
R

Purchased

No

230

Each

0.0000

38

38



washer

D2745

Manufactured

No

230

Each

221.0000

8

8



Bushing



118354.

38. BL 11-10-12.

BL 11-10-12

Location

Loc Qty

Loc Code

FP-A

59

69529 ✓

59

ST023

162

71835

162

8.

W/O:		WORK ORDER CHANGES					
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Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3488-042

Manufactured No

230 Each

22.0000

1

1



Blade Fitting Assembly, RH

Location

Loc Qty

Loc Code

FP008

22

62003

1

68109

1

69904 ✓

9

71883

11



PK 11-10-12

D3492-1

Manufactured No

230 Each

8.0000

8

8



Plug

Location

Loc Qty

Loc Code

FP

8

69531

8

73402



8

PK 11-10-12

D3492-3

Manufactured No

230 Each

85.0000

8

8



Plug

Location

Loc Qty

Loc Code

FP

85

71838 ✓

76

72126

9



8

PK 11-10-12

D3535-25

Manufactured No

230 Each

22.0000

1

1



Wearshoe

Location

Loc Qty

Loc Code

FP018

22

62233

1

69743 ✓

8

73424

13



1

PK 11-10-12

Wednesday, September 21, 2011 2:57:50 PM

Shop Packet Print

Page 4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:57:50 PM

Page 5

Work Order ID: 74110

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3536-25

Manufactured No

230 Each

12.0000

1

1



Gasket



BL 11-10-12

Location

Loc Qty

Loc Code

FP012

74526
70780

12

12

1

D3537-1

Manufactured No

230 Each

190.0000

3

3



Wearpad



BL 11-10-12

Location

Loc Qty

Loc Code

FP001

180

72124

60

73394

60

73395 ✓

60

3

FP016

3

68944

0

70687

3

FP017

7

69817

5

70686

2

D3631-1

Manufactured No

230 Each

163.0000

8

8



Washer



BL 11-10-12

Location

Loc Qty

Loc Code

ST072

163

68062 ✓

163

8

Wednesday, September 21, 2011 2:57:50 PM

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Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Wednesday, September 21, 2011 2:57:50 PM

Work Order ID: 74110



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3791-1

Wearplate

Manufactured No

230 Each

19.0000

1

1



BF 11-10-12.

LocationLoc QtyLoc Code

FP017

7

62239

2

69282 ✓

5

FP17

12

72158

12

D3793-1

Wearshoe

Manufactured No

230 Each

25.0000

1

1



BF 11-10-12.

LocationLoc QtyLoc Code

FP001

14

73422 ✓

14

FP018

11

70781

11

D3793-3

Wearshoe

Manufactured No

230 Each

17.0000

1

1



BF 11-10-12.

LocationLoc QtyLoc Code

FP018

17

70813 ✓

5

72160

12

D3794-1

Gasket

Manufactured No

230 Each

17.0000

1

1



BF 11-10-12.

LocationLoc QtyLoc Code

FP010

17

70779 ✓

17

Wednesday, September 21, 2011 2:57:51 PM

Shop Packet Print

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Wednesday, September 21, 2011 2:57:51 PM

Work Order ID: 74110

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3794-3

Manufactured No

230 Each

8.0000

1

1



Gasket



BL 11-10-12

Location

Loc Qty

Loc Code

FP018

8

70812 ✓

8

MS21043-6

Purchased No

230 Each

533.0000

4

4



BL 11-10-12

NUT

Location

Loc Qty

Loc Code

FG

20

103693

20

ST301

513

112314 ✓

303

117887

10

118384

200

MS21083C8

Purchased No

230 Each

86.0000

1

1



BL 11-10-12

NUT

Location

Loc Qty

Loc Code

FP-B

1

115884

1

ST293

13

118077 ✓

13

ST303

72

115884

0

118354

22

118614

50

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:57:51 PM

Work Order ID: 74110

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0832R

Purchased

No

230

Each

352.0000

1

1



WASHER



BL 11-10-12

Location

Loc Qty

Loc Code

FP-B

23

114915 ✓

23

ST297

329

114915

329

NAS1515H3L

Purchased

No

230

Each

156.0000

4

4



WASHER



BL 11-10-12

Location

Loc Qty

Loc Code

FG

40

102472 ✓

40

ST277

116

113362

57

118686 ✓

59

NAS1611-010

Purchased

No

230

Each

151.0000

8

8



O-RING



BL 11-10-12

Location

Loc Qty

Loc Code

FP

137

117460

8

118077 ✓

1

118612 ✓

128

FP-A

14

110915

14

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Picklist Print

Wednesday, September 21, 2011 2:57:51 PM

Work Order ID: 74110

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

NAS1611-013

Purchased No

230 Each

140.0000 8 8



O-RING

Location

Loc Qty

Loc Code

FP	55	
117291	2	
117887	53	
FP-A	85	
116582	5	
118384 ✓	80	

BL 11-10-12

AN8C21A

Purchased No

250 Each

81.0000 2 2



BOLT

Location

Loc Qty

Loc Code

ST345	81	
118045	31	
118758	50	

[Signature]

D2741

Manufactured No

250 Each

33.0000 1 1



Blade, 350 Skidtube

Location

Loc Qty

Loc Code

ST466	33	
70667	33	

[Signature]

D3493-1

Manufactured No

250 Each

69.0000 2 2



Washer

Location

Loc Qty

Loc Code

ST062	69	
70697	31	
71846	38	

11/10/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:57:51 PM

Page 10

Work Order ID: 74110

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3532-1

Manufactured No

250 Each

15.0000 2



Spacer

Location

Loc Qty

Loc Code

ST065

15

69895

15

MS21083C8

Purchased No

250 Each

86.0000 2



NUT

Location

Loc Qty

Loc Code

FP-B

1

115884

1

ST293

13

118077

13

ST303

72

115884

0

118354

22

118614

50

NAS1149D0863J

Purchased No

250 Each

144.0000 2



WASHER

Location

Loc Qty

Loc Code

ST298

144

118078

144

D2600-3-BENT

Manufactured No

110 Each

9.0000 1



Extrusion Bent

Location

Loc Qty

Loc Code

LG

9

66875

8

72153

1

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Page 10

DL
11/02/29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:57:52 PM

Work Order ID: 74110



Parent Item: D350-636-012



Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D2744

Manufactured No

110 Each

73.0000

1 1



Cap



BE 11/10/04

Location

Loc Qty

Loc Code

LG002

17

62715

1

70881

16

WA

56

71861

56

D2739

Manufactured No

160 Each

9.0000

1 1



350 I Beam



Location

Loc Qty

Loc Code

LG

9

70823

1

72154

4

72155

4

D2743

Manufactured No

160 Each

166.0000

8 8



Crossbolt Spacer



Location

Loc Qty

Loc Code

LG

108

69818

5

71839

103

LG001

58

67766

4

68251

54

8

DC 11/10/05

BE 11/10/05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Wednesday, September 21, 2011 2:57:52 PM

Work Order ID: 74110

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 9/21/2011

Required Date: 10/7/2011

Start Qty: 1.00

Required Qty: 1.00

D3490-3 Manufactured No 160 Each 10.0000 4 4



Cross Bolt Spacer



BE 11/10/05

Location

Loc Qty

Loc Code

LG

10

70768

10

4

D3490-1 Manufactured No 160 Each 82.0000 4 4



Cross Bolt Spacer



BE 11/10/05

Location

Loc Qty

Loc Code

LG

80

67773

5

69823

10

71841

65

4

LG001

2

62450

2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH:
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 74110
11-09-21

RELEASED
08-07-16

F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/35 (ZN C8-1); D3794-1/3 REPLACES D3536-13/35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741; QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN	<u>PC</u>	DART AEROSPACE USA, INC.	
DRAWN	<u>RE</u>	PORT HADLOCK, WA	
CHECKED	<u>AS</u>	DRAWING NO.	REV. F
MFG. APPR.	<u>AS</u>	D2750	SHEET 1 OF 11
APPROVED	<u>AS</u>	TITLE	SCALE
DE APPR.	<u>AS</u>	350 SKIDTUBE ASSEMBLY	NTS
DATE	08.07.16	COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMBINED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

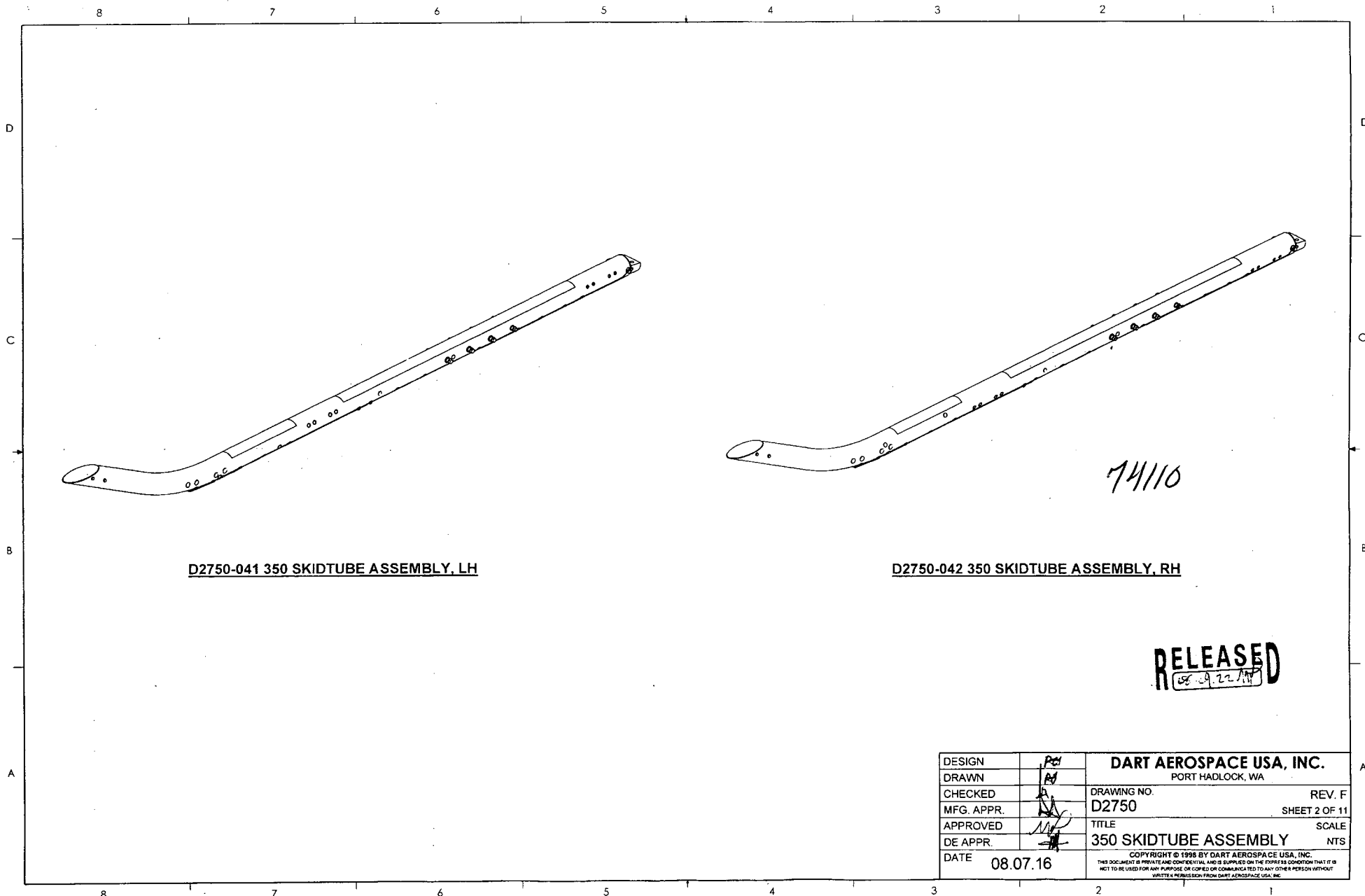
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



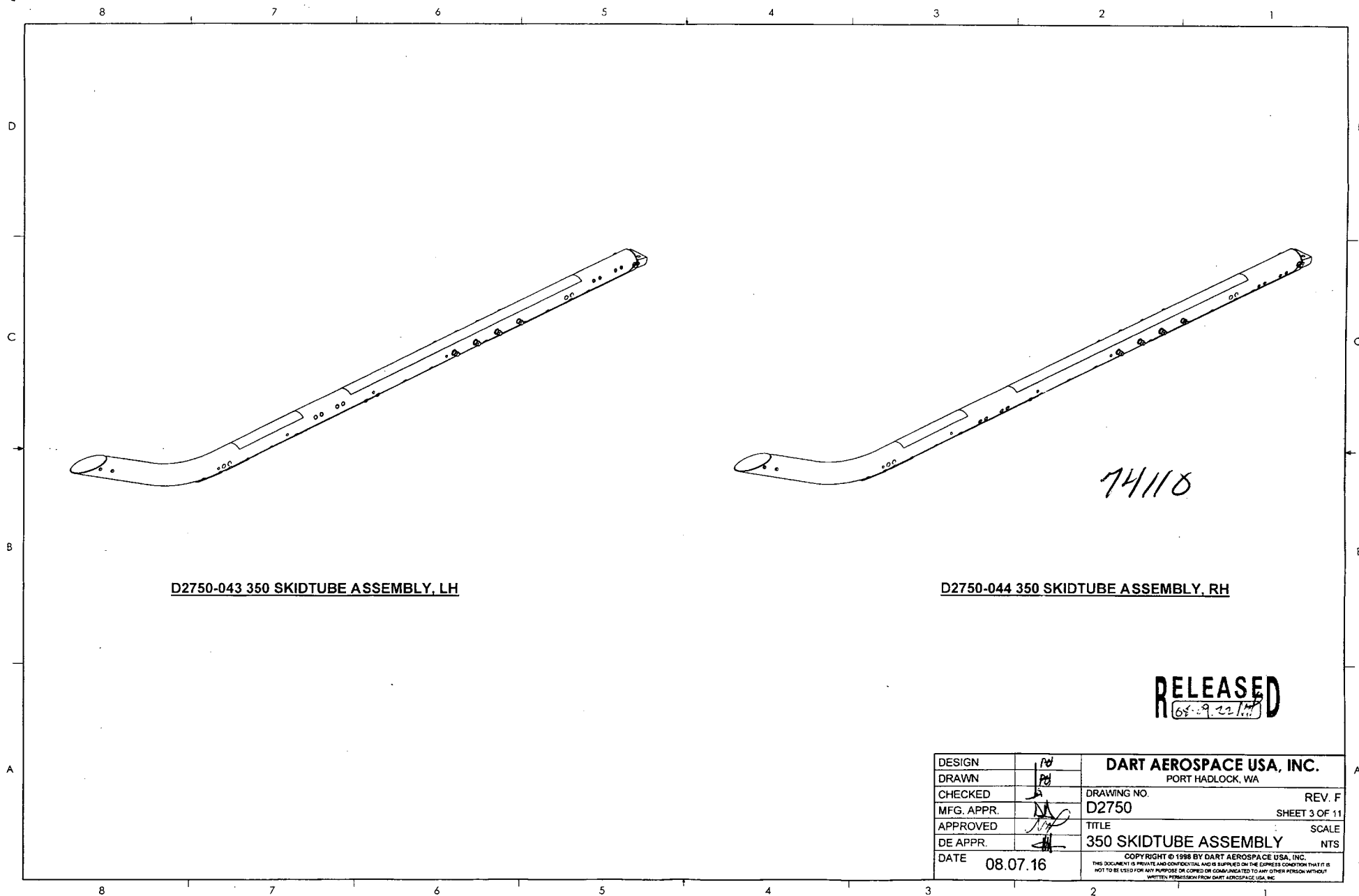
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



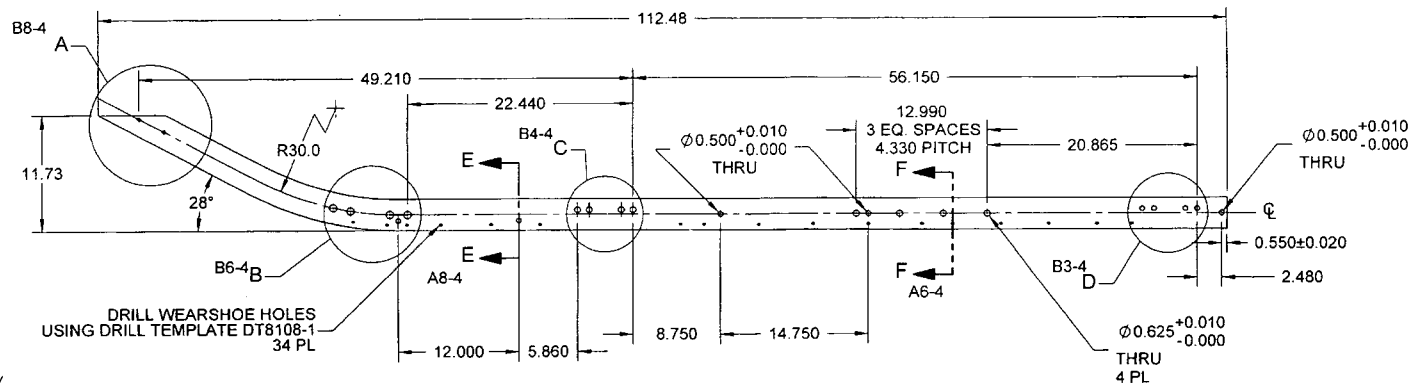
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

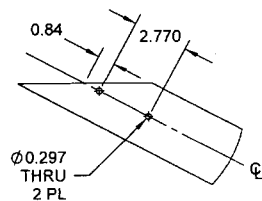
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

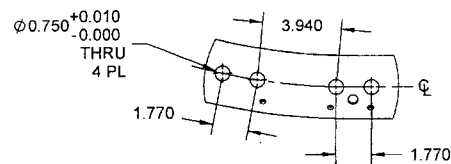
NOTE: Date & initial all entries



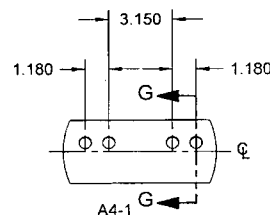
D2750-1 LH SKIDTUBE



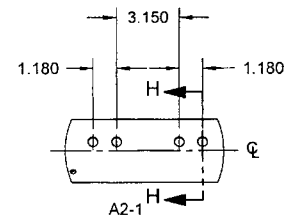
DETAIL A
SCALE 2X



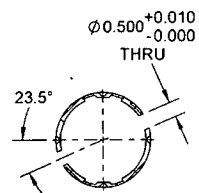
DETAIL B
SCALE 2X



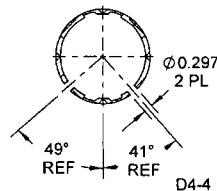
DETAIL C
SCALE 2X



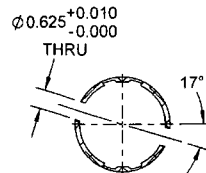
DETAIL D
SCALE 2X



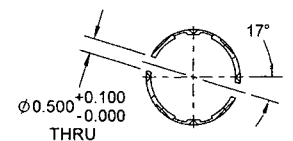
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

DESIGN	JP
DRAWN	JP
CHECKED	
MFG. APPR.	
APPROVED	
DE APPR.	
DATE	08.07.16

DART AEROSPACE USA, INC. PORT HADLOCK, WA	
DRAWING NO. D2750	REV. F SHEET 4 OF 11
TITLE 350 SKIDTUBE ASSEMBLY	SCALE NTS
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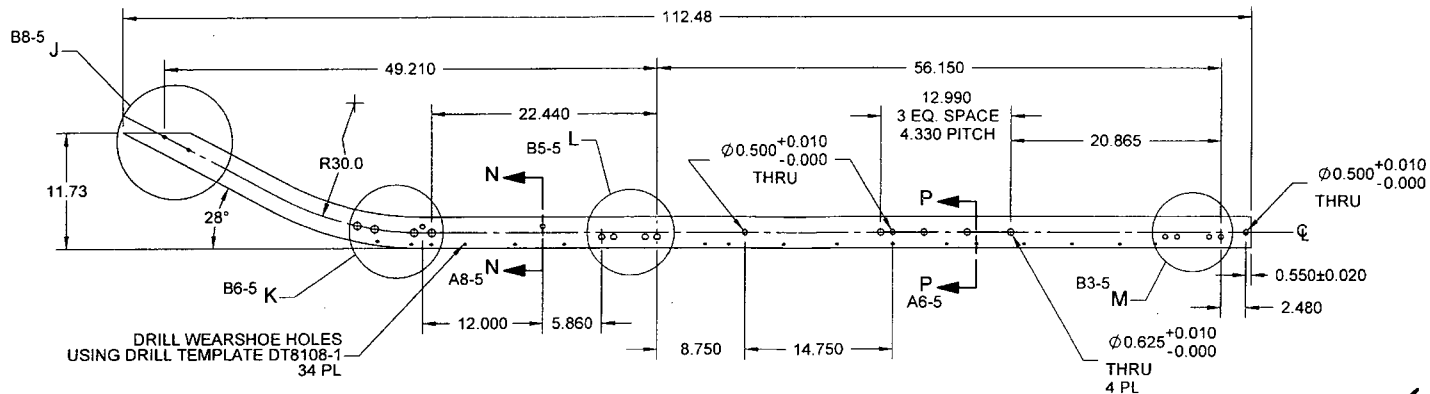
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

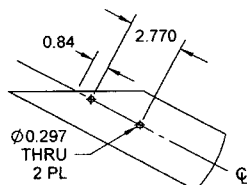
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

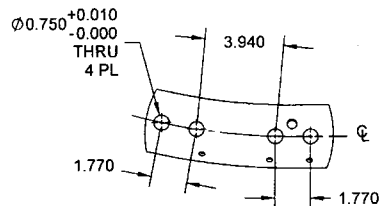
NOTE: Date & initial all entries



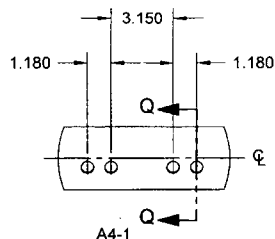
D2750-2 RH SKIDTUBE



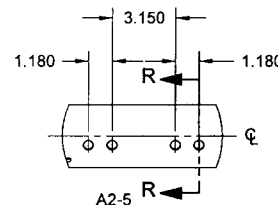
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SCALE 2X



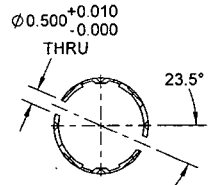
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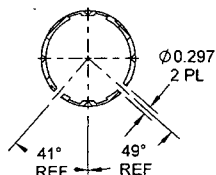
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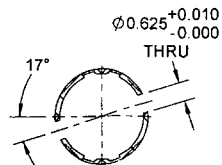
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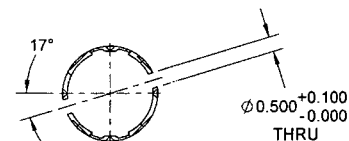
SECTION N-N
SCALE 3X, 2 PL



SECTION P-P
SCALE 3X, 17 PL



SECTION Q-Q
SCALE 3X, 4 PL



SECTION R-R
SCALE 3X, 4 PL

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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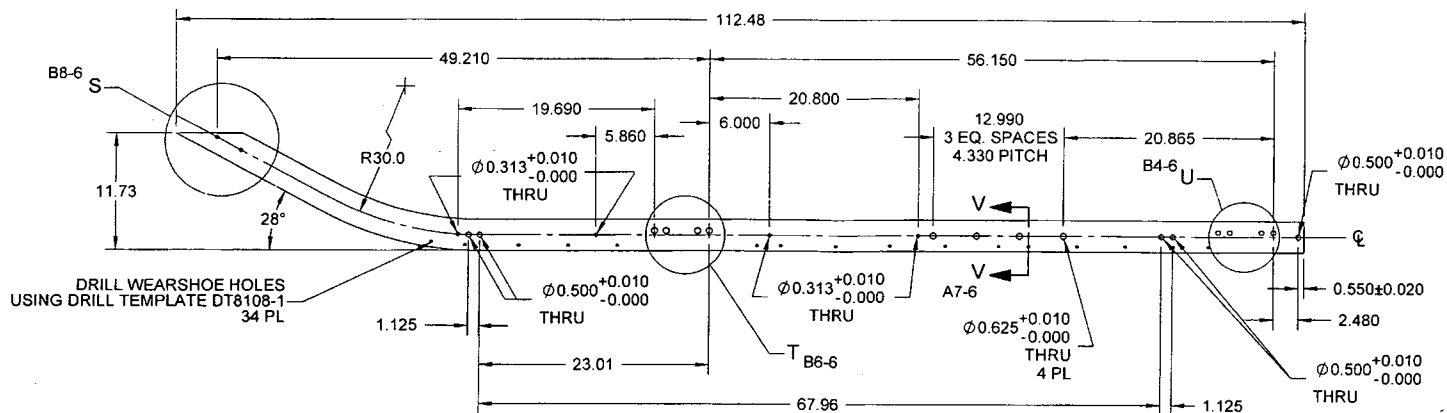
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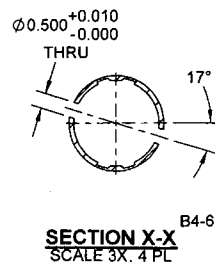
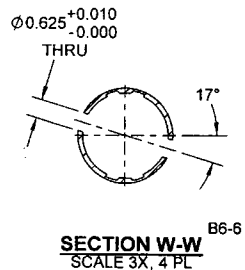
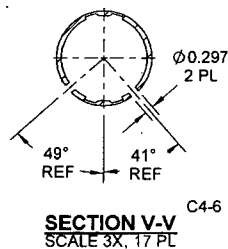
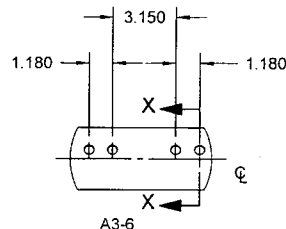
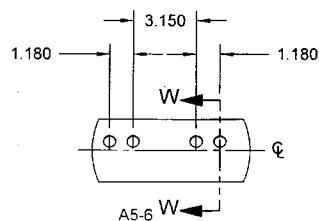
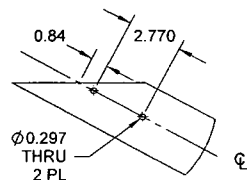
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D2750-3 LH SKIDTUBE



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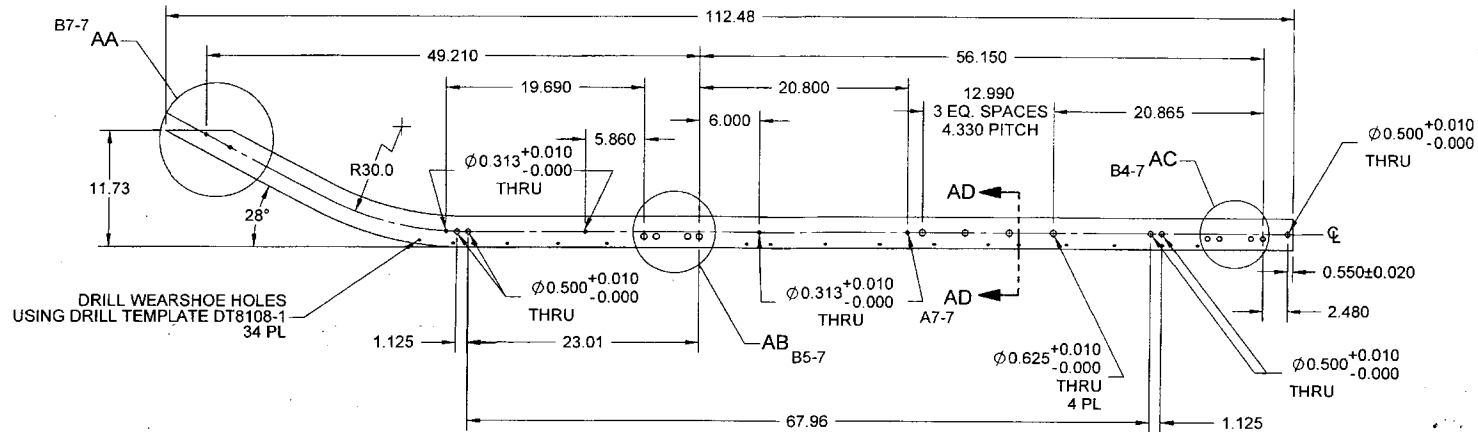
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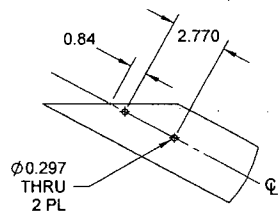
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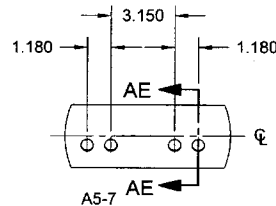
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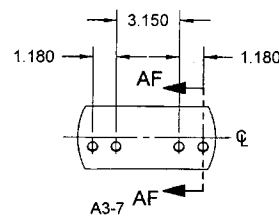
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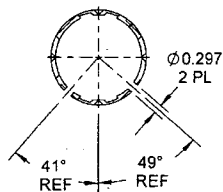
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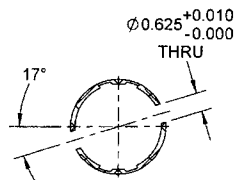
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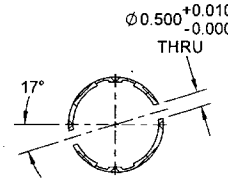
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



SECTION AE-AE
SCALE 3X, 4 PL



SECTION AF-AF
SCALE 3X, 4 PL

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DRAWN	PA	PORT HADLOCK, WA	
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MFG. APPR.	PA	D2750	SHEET 7 OF 11
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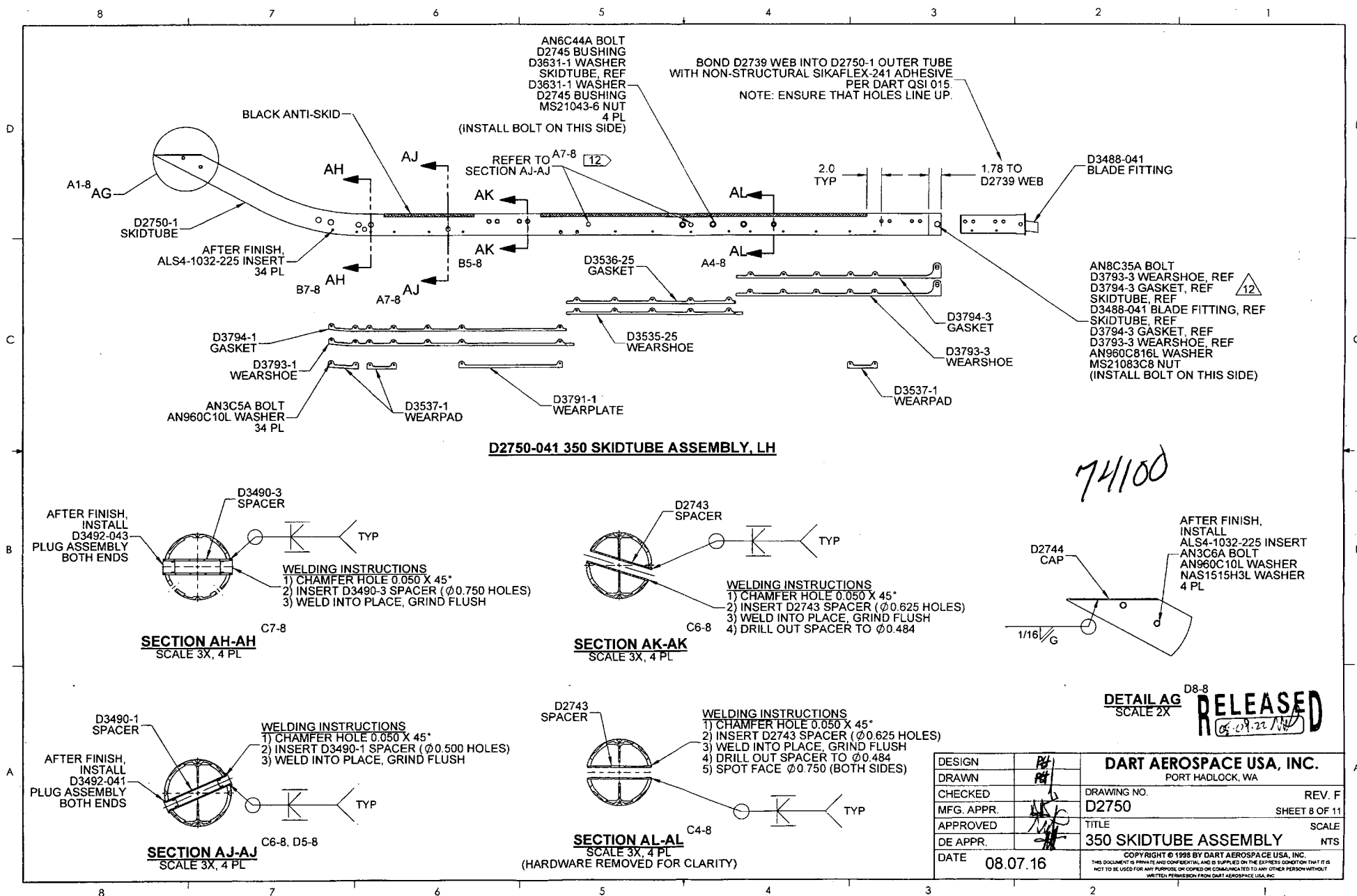
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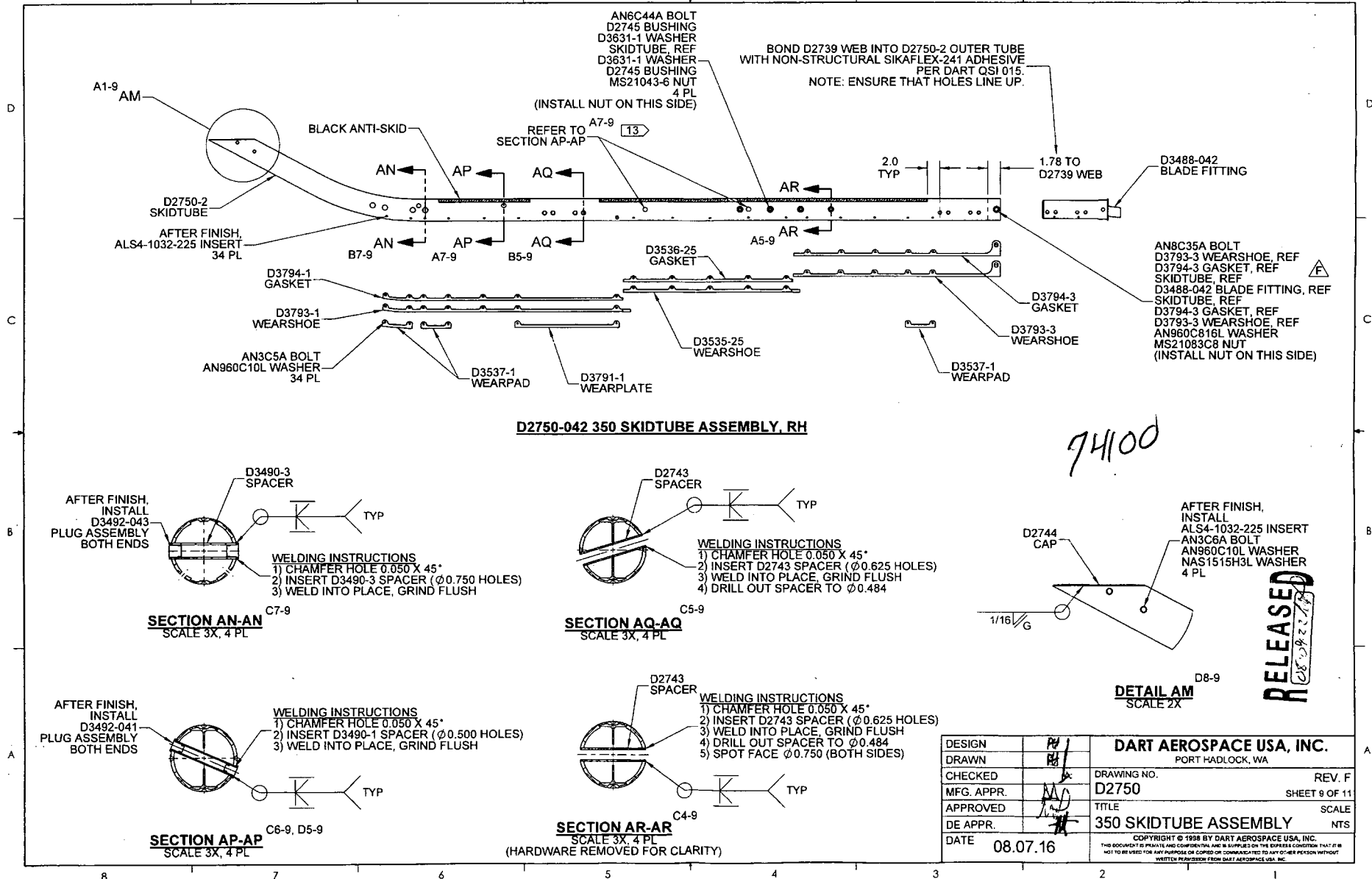
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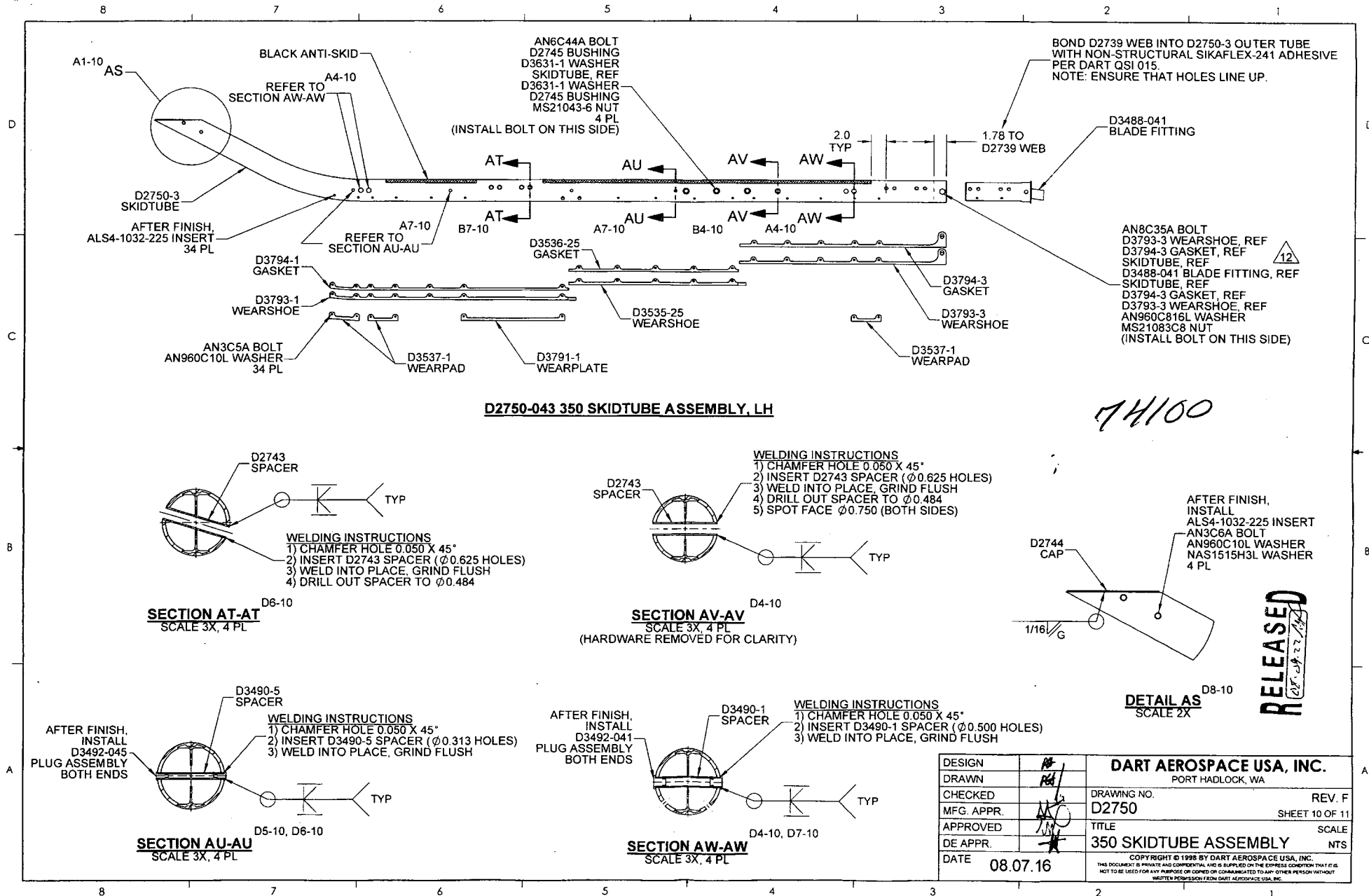
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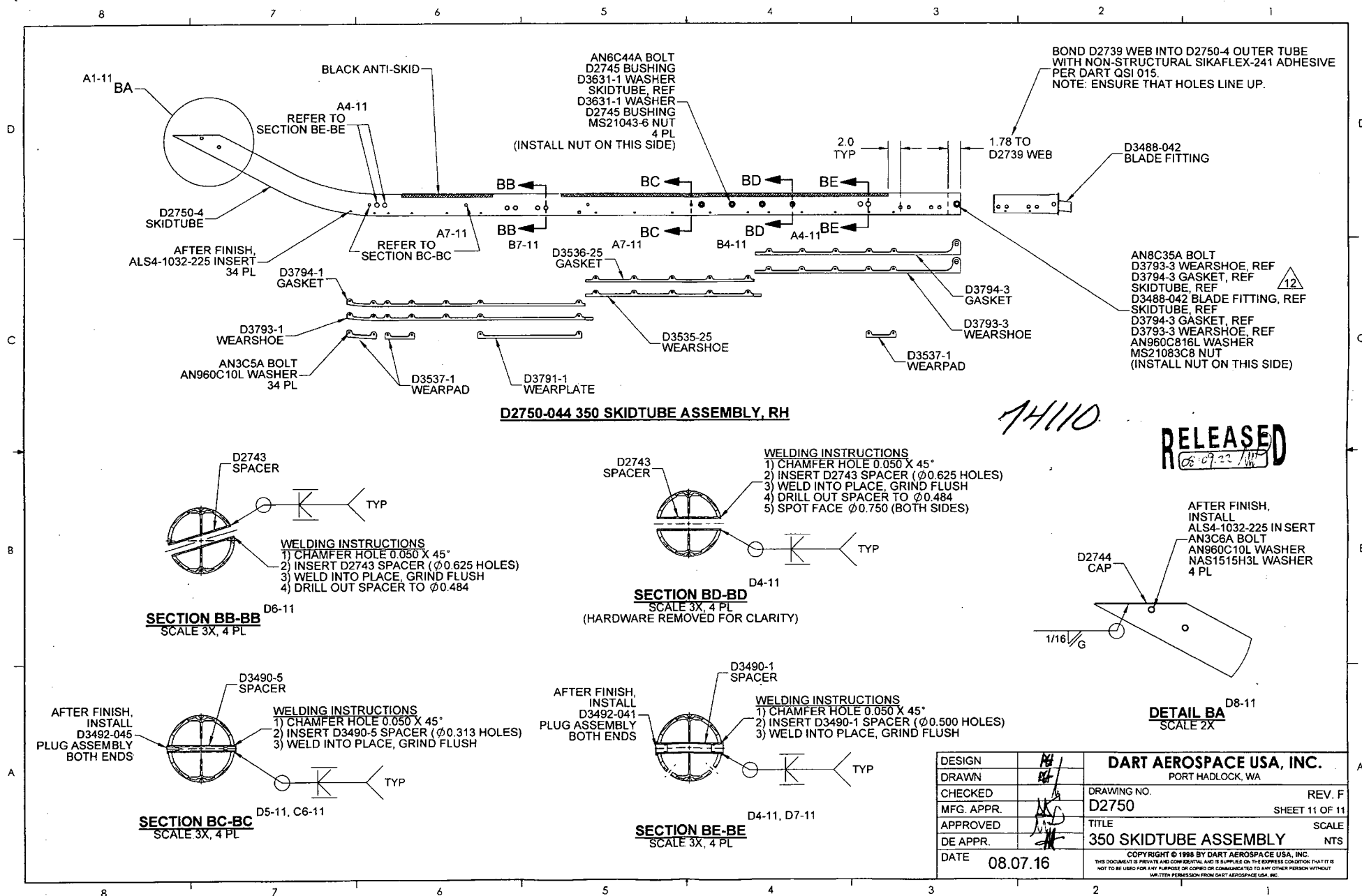
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 265

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 714270
Part number: J 350 636 015
Description: 350
Welding Process: Tig ☒ Mig ☐
Base material: Aluminum
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual: pass ☒ fail ☐
Penetration: pass ☒ fail ☐

UNACCEPTABLE

Cracks: pass ☒ fail ☐
Undercut: pass ☒ fail ☐
Pin holes: pass ☒ fail ☐
Overlap (cold lap): pass ☒ fail ☐
Porosity (surface): pass ☒ fail ☐
Coloration: pass ☒ fail ☐

Qualifier: Sal Lugo Date of Test Coupon 11.09.06
Welder: Barclay Elliott Date of Test Coupon 11.09.06

The above named individual is qualified in accordance with AWS D17.1.2001 to weld

W/O:		WORK ORDER CHANGES					
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